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## VS's STARBASE program officially lifts-off

*by John Brownlee, Space Vehicles Directorate*

KIRTLAND AIR FORCE BASE, N.M. — Launched March 15 at the Air Force Research Laboratory's Phillips Research Site, STARBASE La Luz Academy - a novel education program took wing.

The program's goal is to line up elementary and secondary students for future careers as scientists and engineers, not only with the Air Force, but also with other federal research institutions, universities, and those private companies where much of the nation's defense technology is developed.

The unveiling coincided with the national program, "Excellence in Science, Technology, and Mathematics Education Week (March 15-20)."

"Our purpose here at the STARBASE Academy is straightforward and three-fold," said Academy deputy director and lead teacher Ronda Cole. "Working with local schools, we have developed extracurricular coursework in a classroom and hands-on research setting to present science and math in a practical, palatable way to students who otherwise might avoid these subjects," Ms. Cole said.

By uniting the students with the hands-on research, STARBASE Academy puts students on a first-name basis with AFRL scientists and engineers, and others from many federal and private organizations responsible for creating technology needed by the military.

"We are helping to shape the defense researchers of tomorrow, and that is the pay-off for the Air Force," said Ms. Cole, a teacher with the Rio Rancho Public School system assigned full time to the Academy to help unite the Air Force and community in this common goal.

AFRL recognizes that such academic-industry-government partnerships are crucial to preserve a strong national defense, especially when that success is based on technological superiority. Long-range, private-sector studies such as recent findings of the National Science Board suggest that in the next generation, not enough students will major in math and science to sufficiently replace the researchers of today.

"Academy curriculum is divided into three student courses, or what we call in Air Force-speak, 'flights.' They are designed to inspire young, eager kids who believe math and science are beyond them because those subjects are either too difficult, or too dull," said Ms. Cole.

### **The Phillips Technology Institute**

STARBASE *La Luz* is only one plank in AFRL's broadening platform to address future R&D needs. There remains another board to nail down: Accelerating the delivery of technology to the warfighter.

Through a Partnership Intermediary Agreement also signed March 15, AFRL has begun collaboration through the New Mexico Institute of Mining and Technology (New Mexico Tech) on these problems.

That effort, which will eventually expand to include partnerships with the Air Force Institute of Technology, University of New Mexico, New Mexico State University, and other schools from around the country, seeks to enhance Air Force research abilities by using world-class researchers recruited from industry and academia. Expediting the transition of technology will be high on their priority list.

One giant step toward that end is the AFRL-proposed Phillips Technology Institute (PTI). This multidisciplinary endeavor includes future construction at Kirtland Air Force Base of a research campus for advanced studies and will house an innovative mix of scientists, engineers, and educators from across the R&D community. PTI will be more than a laboratory and will search for new ways to conduct business that transform how technology for defense and homeland security reaches the user.

AFRL has examined how its scientists and engineers approach technical problems and what might be done to improve that process so necessary to future military aerospace developments.

In its quest to conceive more resilient, longer-lasting space and directed-energy systems better resistant to enemy attack and the unwelcoming environment that is space, AFRL and its many collaborators will focus on developing a multidisciplinary "think tank" from which to orchestrate and deliver future warfighter technologies.

AFRL is evaluating how it "thinks" and sees the need to build new research institutions, now and in the future, friendly to that goal. STARBASE *La Luz* is one, and PTI is another, with AFRL technologists working with their industry, government, and academic peers in an environment designed to lower the organizational barriers that have traditionally hobbled the rapid advancement of new ideas. @